North Atlantic Landscape Conservation Cooperative Priority Science Program

DRAFT REQUEST FOR PROPOSALS

The North Atlantic Landscape Conservation Cooperative (NALCC) is pleased to announce a Request for Proposals (RFP) for grants under the 2015 NALCC Priority Science Program.

Please Read This Entire RFP, Including the Frequently-Asked-Questions Section, Before Submitting An Application for NALCC Grant Funds.

Background

The Department of the Interior and the U.S. Fish and Wildlife Service has developed a coordinated network of landscape conservation cooperatives to provide the science necessary to undertake strategic conservation efforts across large geographic areas, in part to address major environmental and human-related factors that limit fish and wildlife populations at the broadest of scales.

To protect the natural and cultural resources of the Northeast, natural resource managers and partners are participating in the North Atlantic Landscape Conservation Cooperative. The North Atlantic LCC partnership includes: States, Tribes, Federal agencies, non-governmental organizations, and other species-specific partnerships like migratory bird joint ventures and fish habitat partnerships.

The North Atlantic LCC partners work together to identify common science needs, shared scientific capacity and information and coordinate natural resource conservation actions across the region. The objective of the NALCC Priority Science Program is to address landscape-scale conservation issues by combining resources, leveraging funds, and prioritizing conservation actions identified by the best available science.

2015 North Atlantic LCC Priority Science Needs

Topic 1: Consistent assessment of floodplain ecosystems and cultural resources vulnerable to floodwater inundation

and

Topic 2: Prioritization of Rare Plants

Topic 1: Consistent assessment of floodplain ecosystems and cultural resources vulnerable to floodwater inundation

Overview:

Floodplains provide critical habitat for a large variety of wildlife and plants and perform critical ecological functions, such as dissipating the power of streams and rivers during flood events. However, because of their productive soils and proximity to rivers, floodplains have long been vulnerable to development. The catastrophic effects of recent floods in the Northeast have increased the need for understanding floodplains in order to enhance public safety and reduce flood losses. Recently, conservationists have developed methods to consistently assess floodplains and evaluate how their high quality habitats can be sustained along with providing long-term water quality benefits, and reducing flood risk. The NALCC is seeking proposals to apply consistent assessment of floodplains throughout the region in order to prioritize conservation action. Through the course of the project development, updated information regarding areas of high flood risk and projections of changes in future flood risk will likely be identified. This information will be utilized to develop strategies to conserve the most ecologically valuable floodplain systems while providing benefits to local communities. Depending on the availability of projections for peak flows due to climate change, the prioritization would be informed by projected changes in flood risk- either at the watershed scale or region-wide. The results could be used to assess inundation risk to cultural resources, such as those listed on the National Historic Register. This evaluation of inundation risk would be used to prioritize conservation and management strategies for cultural resources.

Background:

Floodplain systems are valuable because of their rich biological diversity and the many ecological benefits they provide and yet, due to the long history of human use and alteration of river systems, floodplains are also comparatively highly degraded ecosystems. Increasing high precipitation events in the Northeast may exacerbate the economic and ecological damage that can result when rivers are no longer connected to naturally functioning floodplains. The condition or existence of the many cultural resources that floodplains harbor are increasingly vulnerable to peak flows from flood events.

The basic location of floodplains has been mapped by the Federal Emergency Management Agency (FEMA) through the Federal Insurance Rate Maps and by other entities such as state agencies. However, tools to assist communities and conservation planners in understanding the relative value and priority needs for conserving and restoring floodplains are not yet widely available and are dispersed across a number of organizations. Many programs are creating data and analyses that could be utilized to inform an assessment of the value of floodplain ecosystems

as wildlife habitat and as integral components of river networks throughout the North Atlantic LCC region. For example, the Environmental Protection Agency (EPA) has developed freshwater resilience assessment tools that incorporate flood risk. Ecosystem services such as flood mitigation through natural water storage are being investigated by the Nature Conservancy and the Natural Capital project. The state of Vermont has created a GIS based screening tool that allows for the comparison of conservation value and erosion and deposition risks for rivers within the state. The Nature Conservancy has developed an "active river areas" assessment identifies river buffers based on the features (meander belt, floodplain etc.) that vary topographically across a river ecosystem. USGS has developed the Flood Inundation Mapping Program to help understand flood risks and make cost-effective mitigation decisions. The University of Massachusetts and Northeast Climate Science Center have developed peak flow projections due to climate change for the Connecticut River watershed.

The fact that floodplains have been historically used for habitation as well as the production of materials/vegetation by various cultures also renders them highly sensitive from a cultural perspective. The NALCC is seeking to extend its scope of its conservation planning work to include such cultural resources in addition to natural resources such as fish and wildlife. In its initial work in this area, the NALCC is seeking to foster the development of methods for cultural resource vulnerability assessment using non-sensitive and publicly available National Register of Historic Places Public Dataset spatial data (available at: http://www.nps.gov/nr/). Although archaeological data would not be included in this initial effort, the methods and partnerships developed could lead to future collaborations for archaeological resources.

Methods for using flood projections to assess flood exposure of historic structures and associated resources would be developed at the watershed scale or region-wide, with the ultimate goal of having such information for the whole NALCC region. Testing at a watershed scale projection of vulnerable resources could justify support for future climate change streamflow modeling and develop protocols for the long term protection and stewardship of cultural resources vulnerable to climate change.

The partnership built through an ecological benefits analysis of floodplain ecosystems paired with a floodplain-based cultural resources vulnerability assessment based on peak flow projections, would integrate a discussion from diverse perspectives. Analysis of any adverse impact of floodplain development and prioritization for protection/restoration of cultural resources is not usually undertaken in ecological prioritization and assessment reports. Alternatives should be developed that limit the degradation of National Register properties in the location of proposed interventions for flood hazard mitigation. Floodplain management and prioritization strategies should also be designed so as to limit potential impacts to cultural/traditional sites that may be impacted through natural river channel migration patterns. It is anticipated that the primary focus of this project would be on a fine scale ecological benefits analysis of floodplains, with a sub-contract going to a cultural resources vulnerability assessment in floodplain habitats.

Deliverables:

1. A mapped assessment and ecological condition analysis of floodplain habitats throughout the Northeast Region. Components could include but not be limited to: biological diversity, resilience, and ecosystem services values. Derived products would include a prioritization of floodplain habitats for conservation values as determined by a user-weighted scoring system.
2. A map of flood risk throughout the Northeast Region.
3. Assessments of projections of peak streamflows (to select watersheds or region-wide as available) and analysis on how they affect conservation prioritization and prioritization of cultural resource preservation.
4. A plan showing how results will be communicated to: State Fish and Wildlife Agencies, Tribes, Federal agencies such as the National Park Service, Conservation NGOs, State Historic Preservation Offices, State Natural Heritage programs, and Tribal Historic Preservation Offices.

Funding:

A maximum of $100,000 is available (in total) to fund projects in response to this activity area. There is no minimum funding request.

Topic 2: Prioritization of Rare Plants

Overview:

Rare plants are a critical component of biological diversity but are typically under-represented in regional conservation designs due to limited federal and state funding for rare plants. Existing state and global rarity ranks are not at the appropriate resolution for conservation/prioritization decisions at a regional scale. A more refined assessment of which species need specific conservation action at the regional scale is needed.

Background:

Many rare plants have a stochastic distribution and are therefore not captured by typical coarse filters of conservation designs (Index of Ecological Integrity, forest blocks, forest cores, connectivity). NatureServe and all 13 Northeastern states (Heritage Programs)

have detailed mapping and rarity ranking of the region's rare plants. However, neither the state rarity ranks (S1-S5) nor the global ranks (G1-G5) are the appropriate resolution for making conservation prioritization/decisions at the LCC or Northeast regional scale. A collaborative effort to provide a regional context for plant rarity and vulnerability would be of great value in rare plant conservation. A model of this type of regional prioritization is provided by New England Wildflower Society's "Flora Conservanda" (http://www.newfs.org/conserve/flora-conservanda).

The North Atlantic LCC has actively supported and participated in successful efforts to identify regional Species of Greatest Conservation Need for species of fish and wildlife. A comparable effort for plants would complement efforts for animals and could inform regional conservation planning and design efforts (e.g., Regional Conservation Opportunity Areas).

Deliverables:

1. Assemble a team of botanists from the 13 state Natural Heritage Programs, NatureServe regional botanists, New England Wildflower Society, and other plant experts
2. Use NatureServe/Natural Heritage plant data and the team to assess questions including: What is the regional or global distribution of the species? How rare is the species across its range? Is the species declining across its range? Is the species associated with a rare habitat or natural community? Does the species require specific management in order to maintain its populations? Is the species at the edge of its climatic range? Is the species especially vulnerable to climate change? Is the species likely to expand or contract its distribution in the region?
3. A prioritized table of species for conservation action and for incorporation into conservation design efforts including information from 2 above.

Funding:

A maximum of $50,000 is available to fund projects in response to this activity area. There is no minimum funding request.

Proposal Deadline:

[Deadline to be inserted here]

Proposals received after this deadline will not be considered.

Instructions on Submittal of Proposals

Please read carefully and follow all of the guidance listed in the below instructions. You can also access these instructions on the NALCC **website.**

1. Proposals must be submitted as email attachments in MS Word to XXXXXX no later than [deadline here], 2015 at 5:00 PM Eastern Standard Time.

2. The proposal is limited to a total of 6 pages:

- Page 1 is a single cover page with contact information (see details in section #3 below) and a concise description of the proposed project.
- Pages 2-5 are four pages of text about the proposed project, including budget (see details in section #4).
- Page 6 is a single page outlining the qualifications of the individuals and organizations involved. This should include the cultural resources expertise and previous experience with cultural resource collaboration.

3. The cover page should provide the following information:

- Title of Project
- Name of Project Director and Job Title
- Name of Institution
- Email Address
- Physical Mailing Address
- Telephone and Fax Numbers
- Other Principal Investigators Involved (name, title, institution, email address)
- NALCC Funds Requested
- A Concise Description of the Proposed Project. The description should not exceed 250 words and include primary objectives, a brief summary of methods, expected outcomes and a timeline. **This abstract will be widely distributed so please follow the instructions provided on content carefully.**

4. Four pages of explanatory text are the principal component of the proposal and should be written as clearly and concisely as possible, address the following questions, and provide the following information (note that tables, graphs and photos can be included in the proposal but they must be contained within the four pages of text):

- What is the geographic scope of your project?
- What is the start date of the project and the projected end date?
- What is the goal of your project and what major objectives or tasks will you undertake to achieve that goal?
- What are the methods by which you propose to carry out your work?
- What measurable products or outcomes will result from your project?
- What is the schedule for key events and tasks?

- What is the proposed total budget of your project? Separate the budget into the following categories: Personnel Service, Fringe Benefits, Indirect Overhead, Supplies and Materials, Travel, Contractual Service, and In-kind Services. **Please note that indirect overhead (F&A) cannot exceed 15% of direct costs.** Clearly indicate which activities will be supported by NALCC grant funds and which will be supported by other funds. For any matching funds or contributed partner funds committed to the project, specify whether those funds are direct or indirect and clearly designate the source of the funds.